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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

PATEL, HARESH N

ART UNIT	PAPER NUMBER
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2126

DATE MAILED: 11/20/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application N .

09/875,245

Applicant(s)

SANGHVI ET AL.

Examiner

Harsh Patel

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☒ Claim(s) 1-27 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 June 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-27 are presented for examination.

Priority

2. Applicant's claim for domestic provisional priority under 35 U.S.C. 119(e) is acknowledged. Claims 1-27 do not benefit the provisional priority date as the effective filing date. The provisional application does not contain all the claimed invention, for example, the detailed description of payload objects and event filters differs.

Specification

3. The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC (See 37 CFR 1.52(e)(5) and MPEP 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text are permitted to be submitted on compact discs.) or
REFERENCE TO A "MICROFICHE APPENDIX" (See MPEP § 608.05(a). "Microfiche Appendices" were accepted by the Office until March 1, 2001.)
- (e) BACKGROUND OF THE INVENTION.

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- (1) Field of the Invention.
- (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (f) BRIEF SUMMARY OF THE INVENTION.
- (g) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (h) DETAILED DESCRIPTION OF THE INVENTION.
- (i) CLAIM OR CLAIMS (commencing on a separate sheet).
- (j) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (k) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

The disclosure is objected. Some of the informalities are:

- i. The section "CROSS-REFERENCE TO RELATED APPLICATIONS" is missing co-pending applications.
- ii. The "DETAILED DESCRIPTION OF THE INVENTION" section contains significant amount of prior art contents. All the known prior art contents from the "DETAILED DESCRIPTION OF THE INVENTION" section needs to be moved into the "Description of Related Art" sub-section of the "BACKGROUND OF THE INVENTION" section.
- iii. The "Description of Related Art" sub-section of the "BACKGROUND OF THE INVENTION" section must contain all the known prior art subject matter. This section does not provide any background information and rather provides information about the invention itself.

Appropriate correction is required.

- 4. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

5. Applicant is reminded of the proper content of an abstract of the disclosure.

A patent abstract is a concise statement of the technical disclosure of the patent and should include that which is new in the art to which the invention pertains. If the patent is of a basic nature, the entire technical disclosure may be new in the art, and the abstract should be directed to the entire disclosure. If the patent is in the nature of an improvement in an old apparatus, process, product, or composition, the abstract should include the technical disclosure of the improvement. In certain patents, particularly those for compounds and compositions, wherein the process for making and/or the use thereof are not obvious, the abstract should set forth a process for making and/or use thereof. If the new technical disclosure involves modifications or alternatives, the abstract should mention by way of example the preferred modification or alternative.

The abstract should not refer to purported merits or speculative applications of the invention and should not compare the invention with the prior art.

Where applicable, the abstract should include the following:

- (1) if a machine or apparatus, its organization and operation;
- (2) if an article, its method of making;
- (3) if a chemical compound, its identity and use;
- (4) if a mixture, its ingredients;
- (5) if a process, the steps.

Extensive mechanical and design details of apparatus should not be given.

The abstract of the disclosure is objected to because it is missing key terms involved in the invention and is not properly understood. Abstract should contain computer terminology used in the invention, like, network, database, e-mail message, etc. Also the abstract does not clearly state the goal of the invention. Correction is required. See MPEP § 608.01(b).

Drawings

6. Figure 1 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings

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are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Information Disclosure Statement

7. Applicant and the assignee of this application are required under 37 CFR 1.105 to provide the following information that the examiner has determined is reasonably necessary to the examination of this application. Unless the invention is created from scratch, applicant needs to provide the prior arts that have led to the invention.

In response to this requirement, please provide the title, citation and copy of each publication that is a source used for the description of the prior art in the disclosure. For each publication, please provide a concise explanation of that publication's contribution to the description of the prior art.

This Office action has an attached requirement for information under 37 CFR 1.105. A complete reply to this Office action must include a complete reply to the attached requirement for information. The time period for reply to the attached requirement coincides with the time period for reply to this Office action.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

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8. Claims 1-10 recite the term “first event filter” and “second event filter”. There is insufficient antecedent basis for this limitation in the claim.

9. Claims 11-15 recite the term “first format” and “second format”. There is insufficient antecedent basis for this limitation in the claim.

10. Claims 22-27 recite the term “first event” “first data format”, “second event”, “second data format”. There is insufficient antecedent basis for this limitation in the claim.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

11. Claims 1-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The terms “filter criteria”, “standard data format” and “payload” are a relative terms, which renders the claim indefinite.

12. Claims 11-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The terms “a first format”, “a second format”, “standard data format”, “event payload”, “a filter”, “criteria” and “event header” are a relative terms, which renders the claim indefinite.

13. Claims 16-21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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The terms "event transformer", "event consumer", "standard data format" and "event payload" are a relative terms, which renders the claim indefinite.

14. Claims 22-27 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The terms "a first format", "a second format", "event action handler", "standard data format", "event payload", "filter criteria" and "event header" are a relative terms, which renders the claim indefinite.

Claim Rejections - 35 USC § 102

15. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

16. Claims 1-27 are rejected under 35 U.S.C. 102(e) as being anticipated by O'Brien et al. 6,470,384 (Hereinafter O'Brien).

17. As per claims 1, 10, 11, 15, 16 and 22, O'Brien teaches the following:

a method comprising,

one or more computer-readable media having stored thereon a computer program that, when executed by one or more processors, causes the one or more processors to,

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an apparatus comprising:

receiving a first event at a first event filter (e.g., an event generated by SNMP-capable agent is received by the SNMP Traps network event, col. 2, line 60 - col. 7, line 65), the first event filter having an associated filter criteria (e.g. an agent having a vendor-specific MIB to interpret specific SNMP traps, col. 2, line 60 – col. 6, line 65),

applying the filter criteria associated with the first event filter to the first event (e.g., a network event 7 could be either a standard SNMP trap 31 or a specialized trap or notification, such as a certogram 30. In addition, three types of event filters are used, Visual Basic scripts, frequency thresholds, and adding custom values to the event or action based on SNMP values before the trap is forwarded to an action 32. Other forms of network events, actions and event filters are feasible as is known in the art, col. 5, lines 6 – 50),

if the first event satisfies the filter criteria associated with the first event filter, then:

transforming the first event into a second event (e.g., mapping of network events 7 to actions 32, col. 5, line 6 – col. 6, line 65); and

communicating the second event to a second event filter having an associated filter criteria (e.g., the arbiter 8 manages the receipt, analysis, and processing of network events 7 based on user defined action sets 39. Each action set 39 defines mappings between actions 32 and event filters 40. Actions 32 are performed by actors 9 and are described below. Event filters 40 are actions which are performed after the receipt of a network event 7 but before any corresponding actions 32 are executed, col. 2, line 61, col. 6, line 65),

the second event filter being associated with an event consumer wherein the event consumer performs an action if the second event satisfies the filter criteria associated with the

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second event filter (e.g., the actors 9 take actions in response to instructions from the arbiter 8.

In the described embodiment, six types of actors are supported, a help desk 27, firewall 28, and methods for broadcasting a network message 33, sending an electronic mail message (email) 34, sending an alphanumeric page 35, and running a script 36. Other types of actors and actions are feasible. The methods could be performed by the same system as the manager 25 or by another remote system depending upon the definition of the action, col. 2, line 61, col. 6, line 65),

receiving a first event having a first format (e.g., an agent having a vendor-specific MIB supplied with their hardware and other types of sensors may have unique mapping key formats, col. 2, line 61, col. 6, line 65),

transforming the first event into a second event having a second format (e.g., format of the events handled by the actions, figure 2, col. 2, line 61, col. 6, line 65),

generating an event header having a plurality of parameters, wherein the plurality of parameters are arranged in a standard data format (e.g., tags used in figure 4, is a data structure showing a binary large object (BLOB) 60 storing an action set 32 for use in the manager 25, Using the BLOB 60, an action set 32 can embed one or more actions 32 and can reference one or more event filters 40. An action set 32 forms an association with one or more network events 7 through scope, as the event mappings are stored in the database 26, including certogram mappings 48 and SNMP mappings 49, within an instance of an action set 32. Internally, each action set 32 stores the action set configuration 61, including any variables used by the action set 62, and one or more streams 63a-c within which are stored the specifications for actions 32. Each stream 63a contains a stream identifier 64, Globally Unique Identifier (GUID) 65, name 66,

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configuration 67, and any variables 68 used by the action. Also, if used, any filter identifiers 69 are also stored in the BLOB 60, col. 7, line 1, col. 10, line 43),

generating an event payload having a plurality of payload objects wherein the plurality of payload objects identify at least one action to perform in response to the event (e.g., The arbiter 8 manages the receipt, analysis, and processing of network events 7 based on user defined action sets 39. Each action set 39 defines mappings between actions 32 and event filters 40, col. 5, lines 35 – 60),

an event transformer to receive a first event and transform the first event into a second event (e.g., network events receiving events from the agents and then generating events for the manager, col. 2, line 60 - col. 7, line 65), the second event having a standard data format regardless of the first event data format (e.g., action set containing user defined actions, col. 2, line 60 - col. 7, line 65),

a plurality of event filters coupled to the event transformer, the event filters to apply filter criteria to the second event (e.g., event filters and their associated action sets, figure 2),

a plurality of event consumers coupled to the plurality of event filters (e.g., actions coupled with the manager and event filters, figure 2, col. 2, line 60 – col. 7, line 65) and the event consumers to perform an action if the second event satisfies the filter criteria applied by the event filters (e.g., actions 32, to create actions based on the events, figure 2, col. 2, line 60 - col. 7, line 65),

receive a first event having a first data format (e.g., receiving an event from the agents having hardware dependent format, an agent have a copy of a vendor-specific MIB supplied with

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their hardware, Other types of sensors may have unique mapping key formats, col. 2, line 61, col. 6, line 65),

filter the first event using a first filter criteria (e.g., an agent filtering using a vendor-specific MIB, col. 2, line 60 – col. 6, line 65),

transform the first event into a second event having a second data format if the first event satisfies the first filter criteria (e.g., mapping of network events 7 to actions 32, col. 5, line 6 – col. 6, line 65), wherein the second data format includes an event header having a plurality of parameters (e.g., internally, each action set 32 stores the action set configuration 61, including any variables used by the action set 62, and one or more streams 63a-c within which are stored the specifications for actions 32. Each stream 63a contains a stream identifier 64, Globally Unique Identifier (GUID) 65, name 66, configuration 67, and any variables 68 used by the action. Also, if used, any filter identifiers 69 are also stored in the BLOB 60, col. 7, line 1, col. 10, line 43), and an event payload having a plurality of payload objects (e.g., manager and actions sets, event filters and actions, col. 2, line 60 - col. 7, line 65); and

communicate the second event to an event action handler if the first event satisfies the first filter criteria (e.g., to send an e-mail by actions after manger receives events from network events, col. 2, line 60 - col. 7, line 65).

18. As per claims 2-9, 12-14, 17-21 and 23-27, O'Brien teaches the following:

the second event includes a header having a plurality of parameters wherein the event header has a standard data format regardless of event source (e.g., a data structure showing a binary large object (BLOB) 60 storing an action set 32 for use in the manager 25 of the system of

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FIG. 1. Using the BLOB 60, an action set 32 can embed one or more actions 32 and can reference one or more event filters 40. An action set 32 forms an association with one or more network events 7 through scope, as the event mappings are stored in the database 26, including certogram mappings 48 and SNMP mappings 49, within an instance of an action set 32.

Internally, each action set 32 stores the action set configuration 61, including any variables used by the action set 62, and one or more streams 63a-c within which are stored the specifications for actions 32. Each stream 63a contains a stream identifier 64, Globally Unique Identifier (GUID) 65, name 66, configuration 67, and any variables 68 used by the action. Also, if used, any filter identifiers 69 are also stored in the BLOB 60, col. 7, line 1, col. 10, line 43),

the second event includes a payload including a plurality of payload objects, wherein the plurality of payload objects identify at least one action to perform in response to the event (e.g., manager and actions sets, event filters and actions, action blocks determining and sending out user defined events, col. 2, line 60 - col. 7, line 65),

the second event filter has no knowledge of the first event (e.g., independent network events, manager and event filters, col. 2, line 60 - col. 7, line 65),

communicating the second event to a second event filter further comprises communicating the second event to a plurality of event filters (e.g., events sent to the event filters by the network elements, col. 2, line 60 - col. 7, line 65), each of the plurality of event filters having an associated filter criteria (e.g., event filters must be configured in a manner analogous to actions before being assigned to an action set. Configured filters are stored as BLOBs 60 in a global table, col. 10, lines 8 – 42),

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each of the plurality of event filters being associated with one of a plurality of event consumers (e.g., event filters for different actions, figure 2), wherein each of the plurality of event consumers performs an action if the second event satisfies the filter criteria associated with the corresponding event filter (e.g., different actions blocks 32 performing different actions, figure 2).

the action performed by the event consumer if the second event satisfies the filter criteria associated with the second event filter is logging the second event to a storage device (e.g., usage of storage manager and database, figure 3).

the action performed by the event consumer if the second event satisfies the filter criteria associated with the second event filter is forwarding the second event to a destination (e.g., broadcast network message action, figure 3),

the action performed by the event consumer if the second event satisfies the filter criteria associated with the second event filter is generating an email message (e.g., send e-mail action, figure 3),

applying the plurality of parameters in the event header to a filter to determine whether the associated event meets criteria associated with the filter, the second event includes an event header having a plurality of parameters arranged in a standard data format, and wherein the plurality of parameters in the event header are applied to the event filters to determine whether the associated event satisfies the filter criteria (e.g., a data structure showing a binary large object (BLOB) 60 storing an action set 32 for use in the manager 25, Using the BLOB 60, an action set 32 can embed one or more actions 32 and can reference one or more event filters 40. An action set 32 forms an association with one or more network events 7 through scope, as the event

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mappings are stored in the database 26, including certogram mappings 48 and SNMP mappings 49, within an instance of an action set 32. Internally, each action set 32 stores the action set configuration 61, including any variables used by the action set 62, and one or more streams 63a-c within which are stored the specifications for actions 32. Each stream 63a contains a stream identifier 64, Globally Unique Identifier (GUID) 65, name 66, configuration 67, and any variables 68 used by the action. Also, if used, any filter identifiers 69 are also stored in the BLOB 60, col. 7, line 1, col. 10, line 43),

the plurality of parameters are arranged in a standard data format regardless of the first event source, applying the second event to an event filter having an associated filter criteria; and communicating the second event to an event consumer if the second event satisfies the filter criteria associated with the event filter (e.g., In response to the receipt of the network event notification, the manager 25 determines the action set 39 to which the network event 7 is associated using a stored set of event mappings. Each of these action sets 39 group one or more actions 32 and one or more optional event filters 40. If appropriate, the manager 25 causes an actor 9 to perform some task by dispatching an appropriate action 32, col. 3, line 61, col. 10, line 41),

the event transformer operates independently of the event filters and independently of the event consumers (e.g., manager independent of the event filters and the actions, figure 2),

the plurality of payload objects in the event payload are used by an event consumer (e.g., action blocks, figure 2) that receives the second event to identify an action to perform in response to the second event (e.g., action blocks to perform actions, to send e-mail, user notification etc., figure 2),

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the event action handler performs at least one action in response to the second event (e.g., action blocks to perform actions, to send e-mail, user notification etc., figure 2).

Claim Rejections - 35 USC § 102

19. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

20. Claims 1, 10, 11, 15, 16 and 22 re rejected under 35 U.S.C. 102(b) as being anticipated by Wold et. al. 5,724,589 (Hereinafter Wold).

21. As per claims 1, 10, 11, 15, 16 and 22, Wold teaches the following:

a method comprising,

one or more computer-readable media having stored thereon a computer program that, when executed by one or more processors, causes the one or more processors to,

an apparatus comprising:

receiving a first event at a first event filter (e.g., event sink, col. 9, line 36 – col. 10, line 21), the first event filter having an associated filter criteria (e.g., even sink handling event, col. 9, line 36 – col. 10, line 21)

applying the filter criteria associated with the first event filter to the first event (e.g., even sink handling event, col. 9, line 36 – col. 10, line 21),

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transforming the first event into a second event (e.g., transfer from one event to another event in an event chain, col. 9, line 36 – col. 10, line 21)

communicating the second event to a second event filter having an associated filter criteria (e.g., even sink handling event, col. 9, line 36 – col. 10, line 21)

the second event filter being associated with an event consumer wherein the event consumer performs an action if the second event satisfies the filter criteria associated with the second event filter (e.g., any object oriented event that can be handled by the event filter in the event chain, (e.g., col. 9, line 36 – col. 10, line 21),

receiving a first event having a first format (e.g., with the requirement that the event source does not need to know the class of the event sink. As a result, the system allows developers to create C++ software components which can be connected together without the components having to know anything about the makeup of the component to which it is connected, abstract),

transforming the first event into a second event having a second format (e.g., transfer from one event to another event in an event chain, col. 9, line 36 – col. 10, line 21),

generating an event header having a plurality of parameters, wherein the plurality of parameters are arranged in a standard data format (e.g., usage of object oriented terms and programming, macro with parameters, col. 11, line 15 – col. 23, line 49),

generating an event payload having a plurality of payload objects wherein the plurality of payload objects identify at least one action to perform in response to the event (e.g., sink object to handle the event, col. 9, line 36 – col. 10, line 21, abstract),

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an event transformer to receive a first event and transform the first event into a second event (e.g., transfer from one event to another event in an event chain, col. 9, line 36 – col. 10, line 21),),

a plurality of event filters coupled to the event transformer, the event filters to apply filter criteria to the second event (e.g., transfer from one event to another event in an event chain, col. 9, line 36 – col. 10, line 21),

a plurality of event consumers coupled to the plurality of event filters (e.g., event sink of the event chain filters) and the event consumers to perform an action if the second event satisfies the filter criteria applied by the event filters (e.g., action performed by the event sink in an event chain, col. 9, line 36 – col. 10, line 21),

receive a first event having a first data format, filter the first event using a first filter criteria, transform the first event into a second event having a second data format if the first event satisfies the first filter criteria, communicate the second event to an event action handler if the first event satisfies the first filter criteria (e.g., Despite the absence of any C++ language support for events, the present invention provides a type-safe "wiring" mechanism--one using standard C++ to dispatch an event, raised by one object (the "event source"), to a method of another object (the "event sink"), with the requirement that the event source does not need to know the class of the event sink. As a result, the system allows developers to create C++ software components which can be connected together without the components having to know anything about the makeup of the component to which it is connected. Thus, developers can create pre-packaged, re-usable software components which can simply be "plugged into" a

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design--all accomplished within the confines of the standard C++ programming language, abstract).

Conclusion

22. Examiner has found numerous arts related to the disclosed subject matter.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Haresh Patel whose telephone number is (703) 605-5234. The examiner can normally be reached on Monday, Tuesday, Thursday and Friday from 10:00 am to 8:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Follansbee, can be reached at (703) 305-8498.

The appropriate fax phone number for the organization where this application or proceeding is assigned is (703) 306-5404.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Haresh Patel

November 12, 2003.



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